

California Energy Commission's Quarterly Report Regarding the Renewable Energy Program (July 1– September 30, 2001)

The California Energy Commission is pleased to submit its Quarterly Report on the Renewable Energy Program, covering the period July 1 through September 30, 2001.¹ The report describes the Energy Commission's implementation activities, including information regarding awards submitted to the State Controller² for payment, the cumulative commitment of claims by account, the relative demand for funds by account, a forecast of future awards, and related matters.

Background

Assembly Bill 1890 ([AB 1890] Chapter 854, Statutes 96) required California's three major investor-owned utilities to collect **\$540 million** from their ratepayers over a four-year period (1998-2002) to help support renewable electricity-generation technologies and develop a renewable market. As mandated by AB 1890, the Energy Commission submitted its ***Policy Report on AB 1890 Renewables Funding (Policy Report)*** to the Legislature in March 1997, with recommendations for allocating and distributing these funds. Senate Bill 90 ([SB 90] Chapter 905, Statutes 97) subsequently established a Renewable Resource Trust Fund, placed the \$540 million into the fund, and directed the Energy Commission how to distribute the fund through four distinct accounts, which is consistent with the ***Policy Report***. These accounts and the total funds initially allocated to each are as follows:

- Existing Renewable Resources Account (**\$243 million**)
- New Renewable Resources Account (**\$162 million**)
- Emerging Renewable Resources Account (**\$54 million**)
- Customer-Side Renewable Resources Purchases Account:
 - Customer Credit Subaccount (**\$75.6 million**)
 - Consumer Education Subaccount (**\$5.4 million**)

In January 1998, consistent with SB 90, the Energy Commission adopted overall funding guidelines, eligibility requirements, yearly allocations, and account-specific guidelines to assist participants in applying for funding from the various accounts within the Program. These guidelines provide for fund reallocations among accounts, which are discussed in this report and enumerated where applicable in Table II.

In April 2001, the passage of Assembly Bill 29X authorized the Energy Commission to expand the rebate levels for emerging technologies, ordered the transfer of \$15 million from the General Fund, and reallocated an additional \$15 million from the Renewable Resource Trust Fund, to the Emerging Renewable Resources Account. Of the \$30 million added to the Emerging Account, AB29X designated \$8 million for rebates for small distributed emerging technologies that are located at a customer site receiving distribution service from a local publicly-owned electric utility.

Renewable Energy Program Implementation

The mechanisms for distributing funds vary by account, as do the implementation activities for each account. Table I highlights the Energy Commission's implementation activities for the third quarter of 2001 and describes the expected funding and implementation activities for the fourth quarter of 2001.

¹ Public Utilities Code (PUC), Article 5, Section 445(g) requires the Energy Commission to report to the Legislature quarterly on fiscal and programmatic aspects of the program.

² As a procedural matter, the Energy Commission submits awards directly to the State Controller for payment, rather than through the Treasurer.

**Table I - Renewable Energy Program
Third Quarter 2001 Program Implementation**

Account, Program-Implementation, and Funding Activities: July - September 2001	Expected Funding and Implementation Activities: October - December 2001
Existing Account	
<ul style="list-style-type: none"> • A total of 377 facilities are registered as renewable suppliers; 269 facilities are eligible for funding. • Funds from Tier 1 paid 1 cent/kWh on 316 million kilowatt-hours (kWh) for the month of July 2001; no payments were made in May or June 2001. • No payments were made to any of the projects in Tiers 2 or 3 for the months of May, June, or July 2001. • Rollover funds total \$88.5 million for Tiers 1, 2, and 3, before considering the funds authorized for reallocation. • Payments totaling \$3.16 million were made this quarter. 	<ul style="list-style-type: none"> • The rollover is expected to continue to increase slightly. • An estimated \$8.1 million is expected to be paid in the fourth quarter of 2001.
New Account	
<ul style="list-style-type: none"> • Sixteen additional projects, totaling 70 megawatts (MW) of capacity came on-line; 35 projects are currently producing energy. • To date, payments totaling \$9.63 million have been made to 11 on-line facilities for 803 million kWh of new renewable energy generation. • Payments totaling \$1.50 million were made this quarter. • Bids for the third auction were received on August 8; winners were announced on September 26. 	<ul style="list-style-type: none"> • The construction of projects will continue as will payments to on-line facilities. • Funding Award Agreements with winning bidders in the second and third auctions will continue to be finalized. • Twenty-three additional projects, totaling 291 MW of capacity, are scheduled to come on-line by December 31, 2001.
Emerging Account	
<ul style="list-style-type: none"> • Funds encumbered for Buydown Program reservation requests currently total \$33.9 million. • To date, payments for installed systems total \$12.8 million. • About 1,111 new reservation requests were received this quarter. • An on-line reservation form was activated in July. • Funds (\$16.2 million) were reallocated from the Existing Account and Customer Credit Subaccount to the Emerging Account. • More applications have been received for systems over 30 kW than are funds available. 	<ul style="list-style-type: none"> • A draft analysis of supply-side constraints is scheduled for completion in the next quarter. • Changes in the guidelines are planned to clarify some issues and to improve the application process. • Funding for medium and large projects is expected to be fully encumbered during the next quarter.
Customer-Side Account	
Customer Credit Subaccount	
<ul style="list-style-type: none"> • Twenty-nine active marketers are registered as renewable providers, offering a total of 48 products containing renewable energy. Only six marketers, however, were serving customers. • There is a total of four registered wholesalers. • To date \$56.2 million has been paid to providers. • \$2.1 million was paid to providers this quarter. 	<ul style="list-style-type: none"> • Expenditures will decline as providers return their customers to utility service, and as additional marketers are expected to exit the market. • The Energy Commission re-set the current credit level of 1.0 cent/kWh to maintain this level through the close of year 2001.
Consumer Education Subaccount	
<ul style="list-style-type: none"> • Activities from the first grant solicitation continued; to date, more than \$43K has been paid to this solicitation's grant recipients. • Grant agreements were initiated for the winners of the second grant solicitation, providing \$620K for consumer outreach/education. • Began contract with ICF Consulting to conduct a renewable energy public awareness campaign. • Technical support contractor continued to implement a marketing campaign to promote the Buydown Program. • Participated in several outreach events statewide, including Solfest 2001. 	<ul style="list-style-type: none"> • Projects from the first grant solicitation will be completed. • Work will continue on the five grant projects from the second consumer education grant solicitation. • ICF Consulting and subcontractors will conduct the following activities: <ul style="list-style-type: none"> • market research to develop and test messages • editorial outreach, primarily centered on the Solar Home Tours conducted statewide • further leverage partnerships through the Energy Commission's Renewable Energy Alliance • Will attend and exhibit at workshops, conferences, and fairs throughout the state.

Renewable Resources Trust Fund Expenditures

Through September 30, 2001, the Renewable Resource Trust Fund had *received* a total of \$446.8 million for all of the accounts. As of the third quarter of 2001, the Energy Commission had awarded a total of \$215.9 million, reflecting payments (disbursements) from all of the accounts. Eligible applicants had *reserved* \$171.3 million, reflecting fund reservations (encumbrances) from the New Account, the Emerging Account, and the Consumer Education Subaccount. Table II shows a financial summary of the Renewable Resource Trust Fund as of the third quarter of 2001, reflecting cumulative funding and expenditures since the beginning of the Program, including those that occurred during the third quarter of 2001.

**Table II - Renewable Resource Trust Fund
Cumulative Funding and Expenditures as of the Quarter Ending September 30, 2001
(\$ Millions)**

	Existing Account	New Account	Emerging Account	Customer-Side Account		Program Total
				Customer Credit	Consumer Education	
Available Funds	207.070	122.755	58.903³	53.791	4.310	446.830⁴
Total Disbursements	(135.894)	(9.629)	(12.842)	(56.196)	(1.413)	(215.974)
Third Quarter '01 Disbursements	(3.161)	(1.503)	(3.731)	(2.103)	(0.133)	(10.631)
Intrafund Transfers	0.000	(12.405)⁵	0.000	12.405	0.000	0.000
Intrafund Reallocations	(55.000)^{6, 7}	33.800⁸	31.200	(10.000)⁹	0.000	0.000
Current Balance	16.176	134.521	77.261	0.000	2.897	230.855
Encumbrances	0.000	(134.521)¹⁰	(33.914)¹¹	0.000	(2.897)	(171.332)
Unencumbered Funds	16.176	0.000	43.347	0.000	0.000	59.523

³ AB 29X ordered the transfer of \$15 million from the General Fund to the Emerging Account.

⁴ Available funds include \$12,415 in voluntary contributions.

⁵ At this time, the Customer Credit Subaccount is borrowing \$12.405 million from the New Account. ⁴⁷The funds will be repaid later in the Program.

⁶ To date, the Energy Commission has reallocated \$40 million from the Existing Account to the New Account for the second auction, and authorized the reallocation of an additional \$40 for the third auction.

⁷ AB 29X ordered the reallocation of \$15 million from the Renewable Resource Trust Fund (Existing Account) to the Emerging Account.

⁸ The Energy Commission authorized the reallocation of \$6.2 million from the New Account to the Emerging Account, reducing a previous \$40 reallocation balance to \$33.8 million.

⁹ The Energy Commission authorized the reallocation of \$10 million from the Customer Credit Subaccount to the Emerging Account.

¹⁰ The Energy Commission conditionally allocated \$162 million at its June 1998 auction, \$40 million at its December 2000 auction, and \$40 million at its August 2001 auction. Funds are encumbered for projects as they become available.

¹¹ Reservation requests granted (but not yet paid) since the March 20, 1998 start-up of the Buydown Program.

The participating utilities continue making deposits into the Fund with payments current to September 30, 2001. The Program design has a built-in, two-month processing period for payments to eligible energy in several accounts.

As Table II reflects, in the third quarter of 2001, the State Controller made payments from the Customer Credit Subaccount to providers of renewable energy and from the Emerging Account to recipients of the Buydown Program. Payments were also made from the New Account to 11 of the 35 projects that are now on-line and generating renewable energy, the Existing Account for electricity produced through July 2001, and from the Consumer Education Subaccount to grant-award recipients and contractors for emerging renewables education activities. The Energy Commission encumbered funds from the Emerging Account for systems participating in the Buydown Program, the Consumer Education Subaccount for grant and contract project activities, and from the New Account for 78 projects with funding award agreements from the first, second, and third auctions. Funding for these projects will eventually total up to \$235.8 million; funds from the New Account will continue to be reserved as funding becomes available.

Existing Account

Contrary to expectations, the short-run avoided cost (SRAC) for the month of July 2001 dropped below 5.0 cents/kWh. This drop resulted in payments of \$3.2 million to Tier 1 facilities for the third quarter of 2001. SRAC prices have continued to drop to the point where payments are expected to be made to all tiers for the fourth quarter. It is anticipated that approximately \$8.1 million will be paid out next quarter.

The rollover amount increased by an additional \$8 million this quarter and currently stands at nearly \$88.5 million. Based on conservative projections, this amount will increase to \$91.6 million by the end of the fourth quarter and to \$95.5 million by the end of the year.¹² The rollover is the amount of money that is available in the Existing Account but has not yet been paid out to facilities. Any funds that are not paid in one month are added to the following month's allocation and made available for that month's payment cycle.

The rollover funds will be used in a separate area of the Renewable Energy Program; to date, the Energy Commission has authorized the reallocation of up to \$80 million in Existing Account rollover funds to the New Account to fund the results of two additional auctions. In the first quarter of 2001, up to \$40 million in rollover funds was reallocated to the New Account in order to fund the results of a second auction. In the second quarter of 2001, for purposes of funding a third auction, the Energy Commission authorized the reallocation of an additional \$40 million to the New Account from the rollover funds. The actual transfer of funds will occur before the winning projects are on-line and eligible to begin receiving payments.

An additional \$15 million in Existing Account rollover funds was authorized for reallocation to the Emerging Account to provide increased funding to the Emerging Renewable Buydown Program to satisfy the requirements set forth in Senate Bill 29X. This quarter the Energy Commission authorized the reallocation of \$6.2 million that had been reallocated to the New Account to fund the

¹² These figures do not account for the rollover funds (up to \$95 million) that the Energy Commission has authorized for reallocation to the New Account for purposes of funding two additional auctions, and to the Emerging Account.

second auction; it was not needed for that purpose and thus was redirected to the Emerging Account.

The Energy Commission will determine at a later date the actual amount of funding needed to fully fund winning bids from the second and third New Account auctions. This figure may not be known for several months because auction winners could possibly drop out, qualify for additional incentives, or have their funding awards under the auction either reduced or canceled.

New Account

Sixteen new wind facilities, totaling 70 MW of capacity, came on-line this quarter. Fourteen of these projects were awarded funding through the first auction, and the remaining two were winners in the second auction. All of these new projects are located in the San Geronio wind resource area in Southern California.

Out of the 69 projects that won funding awards from either the first or second New Account auctions, a total of 35 have begun producing energy. These projects are currently contributing a total of 201 MW of new renewable energy capacity to California's strained energy supply.

To date, eight landfill gas facilities totaling 26 MW of capacity, two geothermal projects totaling 60 MW, and one 16.5 MW wind project have received \$9.63 million in payments for approximately 803 million kWh of new renewable generation. The remaining 24 facilities, totaling 99.4 MW of capacity, are technically on-line but have not yet submitted payment invoices to the Energy Commission.

Winning bidders in the third auction for project funding from the New Account were announced on September 26, 2001. Nine new renewable energy projects totaling 300 MW in capacity were awarded \$40 million in conditional funding from the New Account. The funding for this auction will be transferred from the Existing Account's rollover funds at a later date, when disbursements from the New Account begin to increase. All of the available funds were allocated to the winning projects, at an average incentive of 0.75 cents/kWh. The winning projects included wind, waste tire, and small hydro technologies.

The first auction, which awarded \$162 million to new renewable energy projects, was held in June 1998 and resulted in approximately 500 MW of in-state renewable energy capacity scheduled to be on-line by December 31, 2001. The second auction, which was designed in response to the summer 2001 energy shortage, awarded \$40 million to 17 projects that could follow an expedited schedule of development and resulted in approximately 471 MW in capacity.

In response to California's recent energy crisis, subsequent auctions provided a system of bonuses and penalties to encourage projects to be on-line in time to help meet the anticipated summer peak for both 2001 and 2002. Projects participating in the second auction received a 10 percent bonus for beginning operation by June 1, 2001, and are subject to penalties for coming on-line after July 1, 2001. Penalties take the form of monthly reductions in total incentives paid to each project to as much as 80 percent of the project's original incentive bid. In the third auction, the deadline for projects to be operational to receive the 10 percent bonus is June 1, 2002; penalties can be as much as 50 percent of projects' original awards.

Emerging Account

The Buydown Program has received 3,783 reservation requests since it began on March 20, 1998, including 1,111 new requests during the third quarter of 2001¹³. In comparison, one year ago, during the third quarter of 2000, only 98 requests were received.

The escalation in the number of reservation requests received by the Buydown Program continues to be primarily a result of California's current energy crisis, as residents and businesses are becoming increasingly interested in securing a reliable and cost-predictable energy source. Also, the passage of AB 29X authorized an increase in the rebate amount to the lessor of \$4.50 per watt or 50 percent of system costs, which served as additional encouragement to parties that are eligible to participate in the Buydown Program.

Along with increasing the rebate amount, AB 29X appropriated an additional \$15 million from the General Fund to the Buydown Program, and ordered the Energy Commission to transfer \$15 million from another account to the Emerging Account, to provide more funds for Buydown Program rebates. This transfer will be made from the Existing Account at a later date, when payment for rebates becomes necessary.

In September the Energy Commission authorized the reallocation of unused rollover funds to the Emerging Account from the Customer Credit Subaccount and the New Account in the amounts of \$10 million and \$6.2 million, respectively.

Currently, \$33.9 million is encumbered for projects with reservation requests, and the State Controller has paid approximately \$12.8 million to completed projects. The total amount of encumbered funds does not include about 341 reservation requests received during the third quarter of 2001, which are still in various stages of the review process and have not yet received approval for funding. Reservation requests are expected to continue at the current rates as a result of the aforementioned reasons, along with the further utility rate increases expected throughout the state. Funding for medium and large systems is anticipated to be fully encumbered during the fourth quarter of 2001.

An online reservation form was implemented in July 2001, and the staff is taking measures to enhance its efficiency. In the next quarter improvements are expected to be made to the online reservation process, and an online interactive database is planned which will improve customer access to retailers and information about eligible system components.

A technical support contractor finalized a PV Installation Guide in this quarter. Other Emerging Account activities during the third quarter of 2001 include the following ongoing projects, carried out by technical support contractors:

- additional troubleshooting of under-performing systems
- additional training sessions for building officials
- quality control assistance for retailers/installers

¹³ Included in the tally of reservation requests are 476 reservations that have been cancelled or disapproved.

Customer Credit Subaccount

In the third quarter of 2001, the direct access market for renewable energy continued to decline in response to California's ongoing energy crisis.

A reflection of market activity is depicted through the number of providers registered and actively serving customers. By the close of the first quarter of 2001, nine providers continued to serve customers and had not stated that they were planning to exit the market. As of the close of the second quarter, seven providers continued to serve customers. Only six providers have continued to remain active in the Customer Credit program through the third quarter of 2001. It is important to note that the providers that remain in the market have shed some, or nearly all, of their total energy load. Further, the California Public Utilities Commission ordered the suspension of direct access as of September 20, 2001, meaning that providers currently may not sign up new customers.

Since providers are not required to change their registration status when they exit the market, the total number of registered renewable providers held steady from last quarter at 29. One provider registered a new product, bringing the total to 48 registered products. The number of registered wholesalers remains at four.

As reported last quarter, funding is no longer available for non-residential and non-small commercial customers (large customers). Some providers did report corrections to their monthly performance reports this quarter, however, such that funds were returned to the \$15 million allocation to large customers. Returned funds have been, and will continue to be, redistributed to those providers who received partial payment for claims made on behalf of large customers in the month the \$15 million allocation was exhausted.

The credit level remains set at 1.0 cent per kWh, as it has since July 2000. In September, the Energy Commission maintained this credit level for the six-month period from July through December 2001.

To date, the State Controller has paid \$56.2 million to registered renewable providers. The Customer Credit Subaccount staff notes that the trend of decreasing disbursements to providers has leveled off, but expects it to continue to decline through the close of year 2001.

A total of \$10 million of unused rollover funds was reallocated from the Customer Credit Subaccount to the Emerging Renewable Resources Account in September 2001.

Consumer Education Subaccount

During the third quarter of 2001, the staff continued to manage the final tasks of seven grant projects for consumer education and outreach activities for the emerging renewable technologies market. Payments totaling approximately \$43,468 were made for activities for which invoices were received during this period.

Highlights of these grant project activities completed during this period include:

- Articles on emerging renewable technologies were featured in the *Chico News and Review* and the Local Government Commission's *Currents Newsletter*.

- Two brochures on the Emerging Buydown Program were developed, one for the business sector and the other for rural communities.
- Installation of PV panels on the food co-op in Davis was completed. Four other co-ops (Grass Valley, Arcata, Santa Monica and Ocean Beach) will complete PV installations later this year. Educational components and a media campaign to tie-in with the PV installations will be conducted at each store.
- The San Diego Regional Energy Office developed a website for information on installing photovoltaics at homes or businesses [www.sdenergy.org/pvweb].
- A draft of the Small Wind Consumer Buying Guide is being reviewed by the industry.
- A PV display was designed and built at the Chabot Space and Science Center to educate the Center's visitors about its 25 kW rooftop system.
- An educational display was designed for Santa Cruz City Hall's 16.8 kW PV system.
- The Rarus Institute launched solar e-Clips, a weekly electronic news service highlighting solar energy news and providing a history of solar energy and links to solar energy legislation. Subscribe online at [www.californiasolarcenter.org/solareclips/solareclips.html].

Under the second Consumer Education grant solicitation, grant agreements have been developed and the projects selected for funding are underway. Payments totaling approximately \$68,695 were made for project activities for which invoices were received during this period. Highlights of recent activities under these grant projects include the following:

- A public service announcement (PSA) featuring Lee Iacocca highlighting the benefits of renewable energy.
- Commitment by a middle school to install photovoltaics on its building.

The Energy Commission has entered into a contract with ICF Consulting, Inc., the winning bidder for the Renewable Energy Public Awareness Campaign. ICF will develop and implement a statewide campaign to increase consumer awareness and purchases of renewable energy and emerging renewable technologies. During this quarter, ICF Consulting and their team of subcontractors reviewed existing research and recommended an approach to developing and testing messages. The team also developed a list of potential partners and alliances to leverage the public awareness campaign. In September 2001 the staff organized and led a meeting with the ICF Consulting team and the Consumer Education grantees. The meeting accomplished its goal of better coordinating program activities and identifying opportunities for synergies, culminating in a new partnership group, the Renewable Energy Alliance.

In the fourth quarter, ICF Consulting plans to conduct market research activities and develop campaign messages. Initial outreach efforts will focus on the Solar Home Tours, which is conducted statewide over three weekends in October 2001. The staff is also preparing materials and information for distribution at the Solar Home Tours.

The staff participated in several outreach events and fairs during this quarter. The Energy Commission was a co-sponsor of Solfest 2001 held in August in Hopland, California. At this two-day annual renewable energy and environmental fair, the staff exhibited and conducted two workshops on the Renewable Energy Buydown Program.

The staff also represented the Renewable Energy Program at UPEX '01, a Photovoltaic Experience conference held in Sacramento from September 30 to October 4. The staff exhibited and participated in educational workshops at this event, hosted by the Solar Electric Power Association and co-sponsored by the Energy Commission.

JHME, a marketing firm and technical support subcontractor, continues to develop and implement a marketing campaign in support of the Emerging Renewables Buydown (Rebate) Program. JHME is developing campaign materials and incorporating them through paid advertising and public relations.

Summary

In summary, the Energy Commission continues to make excellent progress in implementing the Renewable Energy Program. We expect Program disbursements of the Renewable Resource Trust Fund to increase in the fourth quarter of 2001.